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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,833	01/16/2002	Jeffrey Craig	SANDP007	1181

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RITTER, LANG & KAPLAN
12930 SARATOGA AE. SUITE D1
SARATOGA, CA 95070

EXAMINER

BADERMAN, SCOTT T

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,833

Applicant(s)

CRAIG ET AL.

Examiner

Scott T Baderman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities: A period is needed at line 3. Appropriate correction is required.
2. Claim 38 is objected to because of the following informalities: In line 1 it is believed that “24” should be “34”. Appropriate correction is required.
3. Claim 40 objected to because of the following informalities: In line 1 it is believed that “34” should be “39”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Moshayedi (2002/0091965).

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As in claims 1, 6, 8, 21, 23, 34, 39, 41, 42, 44, 45 and 46, Moshayedi discloses a method and system for determining a status associated with a memory system, the memory system including a plurality of spare units of erase, the method comprising: updating a counter, the counter being arranged to be updated each time a spare unit of erase of the plurality of spare units of erase is reassigned, wherein the counter indicates a number of spare units of erase remaining in the plurality of spare units of erase; comparing the counter to a threshold value, the threshold value being indicative of a number of spare units of erase of the plurality of spare units of erase which are yet to be reassigned in order for the memory system to be considered as reliable; and generating an indication when comparing the counter to the threshold value yields a first result, wherein the indication is arranged to indicate that the memory system is substantially near a failure condition (Figures 1A-4, Abstract, pages 1-4).

As in claims 2 and 35, Moshayedi discloses wherein updating the counter includes decrementing the counter each time a spare unit of erase of the plurality of spare units of erase is reassigned (Abstract, paragraph 16).

As in claims 3, 7, 22 and 36, Moshayedi discloses wherein comparing the counter to the threshold value includes determining when a value of the counter is less than or equal to the threshold value (Abstract).

As in claims 4 and 37, Moshayedi discloses wherein the first result (i.e., the action taken) is arranged to indicate that the value of the counter is less than or equal to the threshold value

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(Abstract).

As in claims 5, 9-14, 24-27 and 38, Moshayedi further discloses including: attempting to write data to a first unit of erase; determining when the first unit of erase is worn; reassigning a first spare unit of erase included in the plurality of spare units of erase as the first unit of erase when it is determined that the first unit of erase is worn, wherein updating the counter includes updating the counter to indicate that the first spare unit of erase is reassigned; and writing the data to the reassigned first spare unit of erase (pages 2-4).

As in claims 15 and 28, Moshayedi discloses wherein the plurality of units of erase are a plurality of sectors, and the plurality of spare units of erase are a plurality of spare sectors (Figure 2, paragraphs 39-42).

As in claim 16, Moshayedi further discloses including: a non-volatile memory, wherein the plurality of units of erase, the plurality of spare units of erase, and the first storage element are included in the non-volatile memory (paragraphs 6-8 and 21).

As in claim 17, Moshayedi discloses wherein the memory system is a non-volatile memory system (paragraphs 6-8 and 21).

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As in claim 18, Moshayedi discloses wherein the memory system is arranged to operate in conjunction with a host system (Figures 1A-B).

As in claim 19, Moshayedi discloses wherein the controller is arranged to reassign a spare unit of erase included in the plurality of spare units of erase in response to a request from the host system (paragraphs 32-36).

As in claims 20, 29, 30 and 47, Moshayedi discloses wherein the memory system is one of a PC card, a CompactFlash card, a MultiMedia Card, a SmartMedia card, a Memory Stick card, and a Secure Digital card (Figure 1A, paragraphs 32-34).

As in claim 31, Moshayedi discloses wherein the host system is arranged to capture information and to attempt to store the information in the memory system (paragraphs 32-35).

As in claim 32, Moshayedi discloses wherein the information is one of still image information, audio information, video image information, and wireless information (i.e., digital camera) (paragraph 32).

As in claim 33, Moshayedi discloses wherein the host system is one of a digital camera, a video camera, a cellular communications device, an audio player, and a video player (paragraph 32).

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As in claim 40, Moshayedi further discloses including: saving the indication (paragraph 56).

As in claim 43, Moshayedi discloses wherein the condition which renders the non-volatile memory systems as being substantially unreliable when comparing the counter to the threshold value yields the first result is one of an end-of-life condition and a fault condition (Abstract).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott T Baderman whose telephone number is (571) 272-3644. The examiner can normally be reached on Monday-Friday, 6:45 AM-4:15 PM, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott T Baderman
Primary Examiner
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STB